



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,363	03/31/2004	Joel J. Kampa	BTEC 9682.1	7746
321	7590	03/24/2006	EXAMINER	
SENNIGER POWERS ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			JASTRZAB, KRISANNE MARIE	
		ART UNIT		PAPER NUMBER
		1744		

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/814,363	KAMPA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Krisanne Jastrzab	1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 02 February 2006.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-10 and 15-24 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-10 and 15-24 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Leifheit '671. See column 7 and Figs. 5 and 6.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Leifheit U.S. patent No. 4,998,671 or Leifheit et al., U.S. patent No. 5,126,070 in view of Aneas U.S. patent No. 6,189, 688 B1 and any of Girard U.S. patent No. 6,764,661, Andersen et al., U.S. patent No. 4,528,268 or Matner et al., U.S. patent No. 5,073,488.

Leifheit and Leifheit et al., teach substantially the invention as set forth (see particularly column 5 of '671, particularly column 3, lines 20-65, column 4, lines 10-15 and 30-35 and column 5, lines 35-60 of '070), however the references are silent as to the use of protective means to prevent premature mixing of the chemical to generate chlorine dioxide.

Aneas clearly teach structure for containing at least two substances separately until such time as mixing is required, such that they cannot react/interact prematurely. The containment means of Aneas is a flexible, tubular structure wherein flexure of the tubular means causes mixing or release of the separated components therein. The structure is surrounded by a protective sleeve means that prevents flexing or deformation of the tube prior to the desired mixing of the components therein. The

sleeve can further be provided with interactive cap means that must be removed to actuate flexing of the tubular structure. See column 4, lines 48-60 and the figures.

All of Girard, Andersen et al., and Matner et al., teach the known and expected use of rupturable glass structures for containment of elements or chemicals wherein the timing of their activity is critical. They further teach that the containment of such structures must entail preventing any glass shards from damaging or escaping the apparatus. The use of glass allows for chemically inert containment with the user protected from direct contact with the contents of the structure during activation/release thereof. See for instance, column 14, lines 40-60 of Girard.

It would have been well within the purview of one of ordinary skill in the art to provide the chlorine dioxide generating structures of either of Leifheit or Leifheit et al., with the protective means as taught in Aneas because it would prevent the accidental activation of the gas generating apparatus.

It would further have been well within the purview of one of ordinary skill in the art to utilize any recognized means of rupturable containment in the systems above, including glass, as taught in any of Girard, Andersen et al., and Matner et al., because a glass structure would allow for chemically inert containment of the contents while protecting the user from direct contact with those contents upon activation or release thereof.

Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leifheit '671 as applied to claims 15-20 above.

Leifheit fails to specifically recite the provision of the containment in a generally dome-shaped construction, however, it is well held that mere changes in shape do not constitute patentable distinction.

### ***Response to Arguments***

Applicant's arguments filed 2/6/2006 have been fully considered but they are not persuasive.

Applicant argues that neither Leifheit reference teaches the use of a glass membrane, however, the argument is moot in view of the new grounds of rejection.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, all of Girard, Andersen et al., and Matner et al., clearly teach the known and expected use of rupturable glass structures for containment of elements or chemicals wherein the timing of their activity is critical, such containment being an objective clearly held by both of Leifheit and Leifheit et al., as well. They further teach that the containment of such structures must entail preventing any glass shards from damaging or escaping the

apparatus. The use of glass allows for chemically inert containment with the user protected from direct contact with the contents of the structure during activation/release thereof, thereby providing clear, substantial motivation for the combination set forth in the rejection above. In support of the conventionality of such containment structures, the Examiner would further note that the newly cited Girard reference teaches equivalent use of plastic or glass in a separating membrane within a chlorine dioxide generating apparatus. See column 14.

Applicant further argues the applicability of Bethel, however, upon further review the Examiner has applied Leifheit '671 to claim 15-23 as the embodiment of Figs. 5 and 6 read upon those claims, thus the above argument is moot in view of the new grounds of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon.-Wed. 6:30am-4:00pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Krisanne Jastrzab  
Primary Examiner  
Art Unit 1744

March 20, 2006